

Work Order ID 138080

October 23, 2015 1:05:18 PM

138080

To ship Nov 4 or Earlier
Please.

Page 1

Item ID: D058-677-013 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Heli-Access-Step™ LH - High Gear OH-58
 Start Date: 10/23/2015 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 11/4/2015 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: SH 20151023 Date: Tooling: Date: Run Start ***NR1***
 QC: Date: SPC (Y/N): Date: Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr								
D2943	RevC	SH							

100	Document Control	0.00							
100									
DC	Memo	0.00							
Doc.Control -USB or Paperwork	Photocopy bluefile & type labels per PPPD058-677-013		CHG 002						

DAS
6
9-89

OCT 29 2014

110		0.00							
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110									
Large Fab	Memo	0.00							
Large Fab	1-Cut D2943-1 from D2622 extrusion as per Dwg D2943								
	2-Deburr and bevel ends for welding								
	3-Weld end cap(1) and mounting plates as per Dwg D2943								
	A/R AL ROD Batch: <u>ML31562</u>								
	4-Grind end cap welds flush as per dwg D2943								

DP 15-10-27

DP 15-10-26
BE 15-10-27

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment ☐		No Re-verification ☐		Pressure/Forced ☐		Temperature/Cure ☐	
Design ☐		Operator ☐		Bending ☐		Set-up ☐	
Doc/Data ☐		Offset/Setup ☐		Centre Not Concentric ☐		BOM/Route ☐	
Equip/Tooling ☐		Supplier ☐		Cracks ☐		Broken/Damage/Defect ☐	
Handling/Pre ☐		Training ☐		Crimp/Kink/Ripple/Wave ☐		Inspection Incomplete/Unqualified ☐	
Material ☐		Use for Testing ☐		Cuffs ☐		Contamination ☐	
Internal Transport ☐		Poor Information ☐		Crushing ☐		Countersink ☐	
Tribal Knowledge ☐		Rushing ☐		Heat Treat ☐		Cut Too Short ☐	
LOA ☐		Product Improvement ☐		Wave/Twist in Tube ☐		Instructions Incomplete/Unclear ☐	
Substation ☐		Process Improvement ☐		Marks/Chatter ☐		Drill Holes ☐	
Past Expiry Date ☐		Manufacturing Process ☐		OTHER : _____			
Misidentified ☐		Past Due ☐					

Work Order ID 138080***138080***

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Item ID: D058-677-013

Accept

N900040100Setup Start ***NS1***

Revision ID:

Item Name: Heli-Access-Step™ LH - High Gear OH-58

Stop ***NS2***Start Date: 10/23/2015 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 11/4/2015 Req'd Qty: 1.00 ***1***

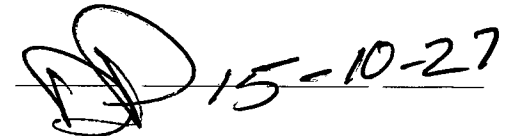
Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC9- Inspect visual per QSI004- Fusion Welds	0.00				1			PD
120									
QC	Memo	0.00							OCT 27 2015
Quality Control									
130	QC5- Inspect part completeness to step on W/O	0.00				1			AS
130									38
QC	Memo	0.00							OCT 27 2015
Quality Control									
140	Chemical Conversion Coat per QSI005 4.1	0.00							
140									
HandFinish	Memo	0.00							
Hand Finishing									



DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="width:12.5%;">Skid-tube ☐</td> <td style="width:12.5%;">Cross tube ☐</td> <td style="width:12.5%;">Water Jet ☐</td> <td style="width:12.5%;">Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																							
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								Lead hand / Supervisor Approval Verification																																																							
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Root Cause				FAULT CATEGORY																																																											
Environment ☐	Design ☐	Doc/Data ☐	Equip/Tooling ☐	Handling/Pre ☐	Material ☐	Internal Transport ☐	Tribal Knowledge ☐	LOA ☐	Substation ☐	Past Expiry Date ☐	Misidentified ☐	No Re-verification ☐	Operator ☐	Offset/Setup ☐	Supplier ☐	Training ☐	Use for Testing ☐	Poor Information ☐	Rushing ☐	Product Improvement ☐	Process Improvement ☐	Manufacturing Process ☐	Past Due ☐	Pressure/Forced ☐	Bending ☐	Centre Not Concentric ☐	Cracks ☐	Crimp/Kink/Ripple/Wave ☐	Cuffs ☐	Crushing ☐	Heat Treat ☐	Wave/Twist in Tube ☐	Marks/Chatter ☐	Temperature/Cure ☐	Set-up ☐	BOM/Route ☐	Broken/Damage/Defect ☐	Inspection Incomplete/Unqualified ☐	Contamination ☐	Countersink ☐	Cut Too Short ☐	Instructions Incomplete/Unclear ☐	Drill Holes ☐	Power Loss/Surge ☐	Folio/Program ☐	Grain ☐	Weld ☐	Wrong Stock Pulled ☐	Out of Sequence ☐	Off-set ☐	Mislabeled ☐	Fit/Function ☐	Misaligned/off center ☐	Positioned Wrong ☐	Outside Dimensions ☐	Over/Under tolerance ☐	Part Incorrect ☐	Part Lost/Missing ☐	Part Moved ☐	Drawing ☐	Finish ☐	Misread ☐	Turning Sequence ☐
OTHER : _____																																																															

Work Order ID 138080***138080***

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October 23, 2015 1:05:18 PM

Item ID: D058-677-013

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Heli-Access-Step™ LH - High Gear OH-58

Start Date: 10/23/2015 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 11/4/2015 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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150 QC3- Inspect Part Finish 0.00

150

QC

Memo

0.00

Quality Control

1 0 15-10-28

160 0.00

160

Large Fab

Memo

0.00

Large Fab

1-Weld last end cap(1) as per Dwg D2943 using Jig DT 8482
A/R AL ROD Batch: M131562

2-Grind end cap welds flush as per dwg D2943

1 0 15-10-28

170 QC10- Inspect visual per QSI004- ground welds 0.00

170

QC

Memo

0.00

Quality Control

1 0 15-10-28DAS
38
9-89
OCT 28 2015

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : _____					

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N900040100

Setup Start *NS1*

Stop *NS2*

Start Date: 10/23/2015 **Start Qty:** 1.00 ***1***

Cust Item ID:

Required Date: 11/4/2015 **Req'd Qty:** 1.00 ***1***

Customer:

Reference:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

**Insp.
Stamp**

0.00

180

QC

Memo

0.00

Quality Control

OCT 28 2015

0.00

190

HandFinish

Memo

0.00

Hand Finishing

1-Pressure wash as per QSI 005
2-Touch up Chemical Conversion Coat as per QSI 005 4.1

QC7-Inspect Chemical Conversion Coat

0.00

195

QC

Memo

0.00

Quality Control

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Work Order ID 138080

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Item ID: D058-677-013

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Item Name: Heli-Access-Step™ LH - High Gear OH-58

Stop ***NS2***

Start Date: 10/23/2015 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 11/4/2015 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
200	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum	0.00							
200	<i>M 133408</i>	0.00							
Powdercoat	Memo	0.00							
Powder Coating									
210	Wing Walk as per dwg QSI005 4.4 Batch <i>11133080</i>	0.00							
210		0.00							
HandFinish	Memo	0.00							
Hand Finishing									
220	QC3- Inspect Part Finish	0.00							
220		0.00							
QC	Memo	0.00							
Quality Control									

DAS
38
9-89
OCT 28 2015

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Work Order ID 138080

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138080

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Item ID: D058-677-013

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Heli-Access-Step™ LH - High Gear OH-58

Stop

NS2

Start Date: 10/23/2015 Start Qty: 1.00

1

Cust Item ID:

Required Date: 11/4/2015 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

230

QC5- Inspect part completeness to step on W/O

0.00

230

QC

Memo

0.00

DAS
38
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Quality Control

240

Pick Kit

0.00

240

Packaging

Memo

0.00

DAS
27
9-89

DAS
28
9-89

Packaging

OCT 29 2015

241

QC4- 100% Inspect kits for completeness

0.00

241

QC

Memo

0.00

DAS
6
9-89

OCT 29 2014

Quality Control

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="width:15%;">Skid-tube ☐</td> <td style="width:15%;">Cross tube ☐</td> <td style="width:15%;">Water Jet ☐</td> <td style="width:15%;">Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																																
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		OTHER : ☐																																																																						

Work Order ID 138080

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138080

Page 7

Item ID: D058-677-013

Accept

N900040100Setup Start ***NS1***

Revision ID:

Item Name: Heli-Access-Step™ LH - High Gear OH-58

Stop ***NS2***

Start Date: 10/23/2015 Start Qty: 1.00

1

Cust Item ID:

Required Date: 11/4/2015 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
250		0.00							
250									
Packaging	Memo	0.00				DAS 28		DAS 6	OCT 29 2014
Packaging	Identify and pack for shipping as per PPP D058-677-013 Location: _____ PPP Rev: _____					9-89		9-89	
260	QC21- Final Inspection - Work Order Release	0.00							
260									
QC	Memo	0.00							
Quality Control									

MUS OCT 29 2015

50151029

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY							
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish	☐
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Past Expiry Date	☐	Manufacturing Process	☐	OTHER :							
Misidentified	☐	Past Due	☐								

Picklist Print

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Page 1

Work Order ID: 138080

138080

Parent Item: D058-677-013

D058-677-013

Parent Item Name: Heli-Access-Step™ LH - High Gear OH-58

Start Date: 10/23/2015

Required Date: 11/4/2015

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A 13.06.07 NEW ISSUE DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D2622-120C

Manufactured No

Each 149.0000

D2622-120C

Step Extrusion

**

1
DD 15-10-26

Location

Loc Qty

Loc Code

HALL

121

134783

121

WA003

28

130161

28

D2734

Manufactured No

Each 80.0000

D2734

Step End Plate

**

①
2
DD 15-10-26

Location

Loc Qty

Loc Code

WA003

80

133142

20

134415

30

135488

22

136182

8

D3458-1

Manufactured No

Each 6.0000

D3458-1

Step Mounting Plate

**

②
2
DD 15-10-26

Location

Loc Qty

Loc Code

WA003

6

120233

4

122211

2

②

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Page 2

Work Order ID: 138080

138080

Parent Item: D058-677-013

D058-677-013

Parent Item Name: Heli-Access-Step™ LH - High Gear OH-58

Start Date: 10/23/2015

Required Date: 11/4/2015

Start Qty: 1.00

Required Qty: 1.00

D3458-3

Manufactured No

Each

16.0000

D3458-3

Step Mounting Plate

**

2
15-10-26

Location

Loc Qty

Loc Code

WA003

16

122212

2

135243

14

Each

240.0000

**

D2230-3

Manufactured No

D2230-3

Mounting Lug

DAS

DAS

27

28

9-89

9-89

OCT 29 2015

Location

Loc Qty

Loc Code

FG

8

109344

4

89045

4

ST521

56

130846

1

131696

4

132403

4

134026

47

ST525A

176

132403

96

137522

80

Each

44.0000

**

DAS

DAS

27

28

9-89

9-89

OCT 29 2015

Location

Loc Qty

Loc Code

Mezz

44

25409

44

D3394-045

Manufactured No

D3394-045

MUG ASSY

DAS

DAS

27

28

9-89

9-89

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Shop Packet Print

Page 2

Picklist Print

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Work Order ID: 138080

138080

Parent Item: D058-677-013

D058-677-013

Parent Item Name: Heli-Access-Step™ LH - High Gear OH-58

Start Date: 10/23/2015

Required Date: 11/4/2015

Start Qty: 1.00

Required Qty: 1.00

D3394-043

Manufactured No

Each 52.0000

D3394-043

Lug

**

DAS
27
9-89

DAS
28
9-89

DAS
6
9-89

Location

Loc Qty

Loc Code

ST528

52

131774

12

132499

2

134677

6

135954

32

Each

50.0000

**

DAS
27
9-89

DAS
28
9-89

D2731-7

Manufactured No

D2731-7

Mounting Lug

DAS
6
9-89

Location

Loc Qty

Loc Code

ST520

26

132444

14

135392

12

ST532A

24

135953

24

Each

242.0000

**

DAS
27
9-89

DAS
28
9-89

D2732-030

Manufactured No

D2732-030

Rubber Cushion - 3"

DAS
6
9-89

Location

Loc Qty

Loc Code

FG

88

134608

32

135594

48

136784

8

ST410

154

136756

40

136784

114

B117118

8x3"

per kit

*

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Page 3

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Work Order ID: 138080

138080

Parent Item: D058-677-013

D058-677-013

Parent Item Name: Heli-Access-Step™ LH - High Gear OH-58

Start Date: 10/23/2015

Required Date: 11/4/2015

Start Qty: 1.00

Required Qty: 1.00

AN4-14A
AN4-14A
Bolt

Purchased No

Each 382.0000

DAS
27
9-89

DAS
28
9-89

Location	Loc Qty	Loc Code
FG	5	
122141	5	
ST325A	350	
M133011	100	
M133284	100	
M133316	150	
ST344	27	
M132677	27	

DAS
6
9-89

AN4-15A
AN4-15A
Bolt

Purchased No

Each 212.0000

DAS
27
9-89

DAS
28
9-89

Location	Loc Qty	Loc Code
GA	40	
120449	40	
ST325A	100	
m132551	0	
m133284	100	
ST343	72	
m132551	72	

DAS
6
9-89

m133483

Picklist Print

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Work Order ID: 138080

138080

Parent Item: D058-677-013

D058-677-013

Parent Item Name: Heli-Access-Step™ LH - High Gear OH-58

Start Date: 10/23/2015

Required Date: 11/4/2015

Start Qty: 1.00

Required Qty: 1.00

AN4-16A
AN4-16A
Bolt

Purchased No

Each 83.0000

DAS 27 9-89
DAS 28 9-89

Location Loc Qty Loc Code

FG 5

121541 5

ST325A 65

M133011 40

M133064 25

ST343 13

M132317 13

Each 2,760.000

DAS 27 9-89
DAS 28 9-89

Location Loc Qty Loc Code

CCK004 2000

m133363 2000

FP001 2

m124231 2

GA 67

m127813 67

ST260a 138

m130799 56

m131803 6

m132262 76

ST305 553

m128300 8

m130388 7

m130922 97

m131618 12

m132123 56

m132382 273

m133316 100

MS21042L4

MS21042L4
Locknut

Purchased No

DAS 6 9-89

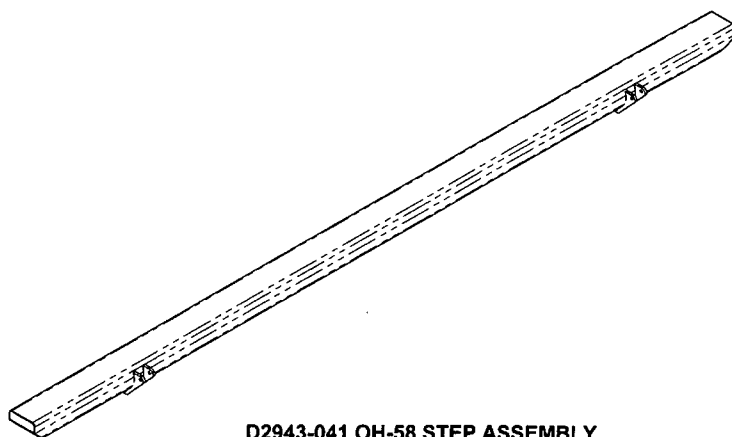
M133316

October 23, 2015 1:05:29 PM

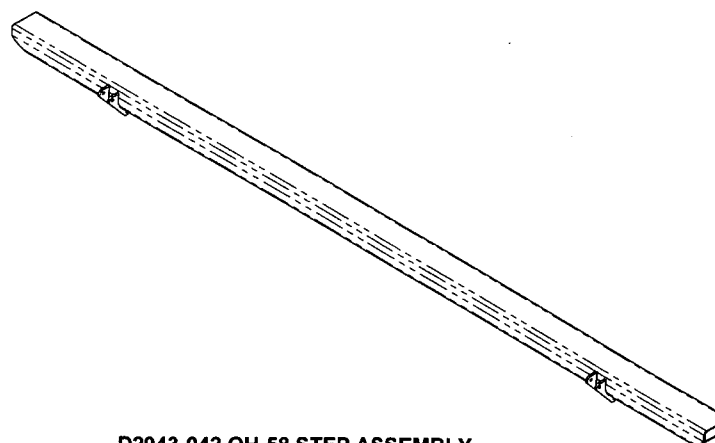
Shop Packet Print

Page 5

ITEM No.	QTY. -041	QTY. -042	PART NUMBER	DESCRIPTION
1	X		D2943-041	OH-58 STEP ASSEMBLY, LH
2		X	D2943-042	OH-58 STEP ASSEMBLY, RH
7	1	1	D2943-1	STEP
11	2	2	D2734	END PLATE
12	2	2	D3458-1	STEP MOUNTING PLATE
13	2	2	D3458-3	STEP MOUNTING PLATE



D2943-041 OH-58 STEP ASSEMBLY



D2943-042 OH-58 STEP ASSEMBLY

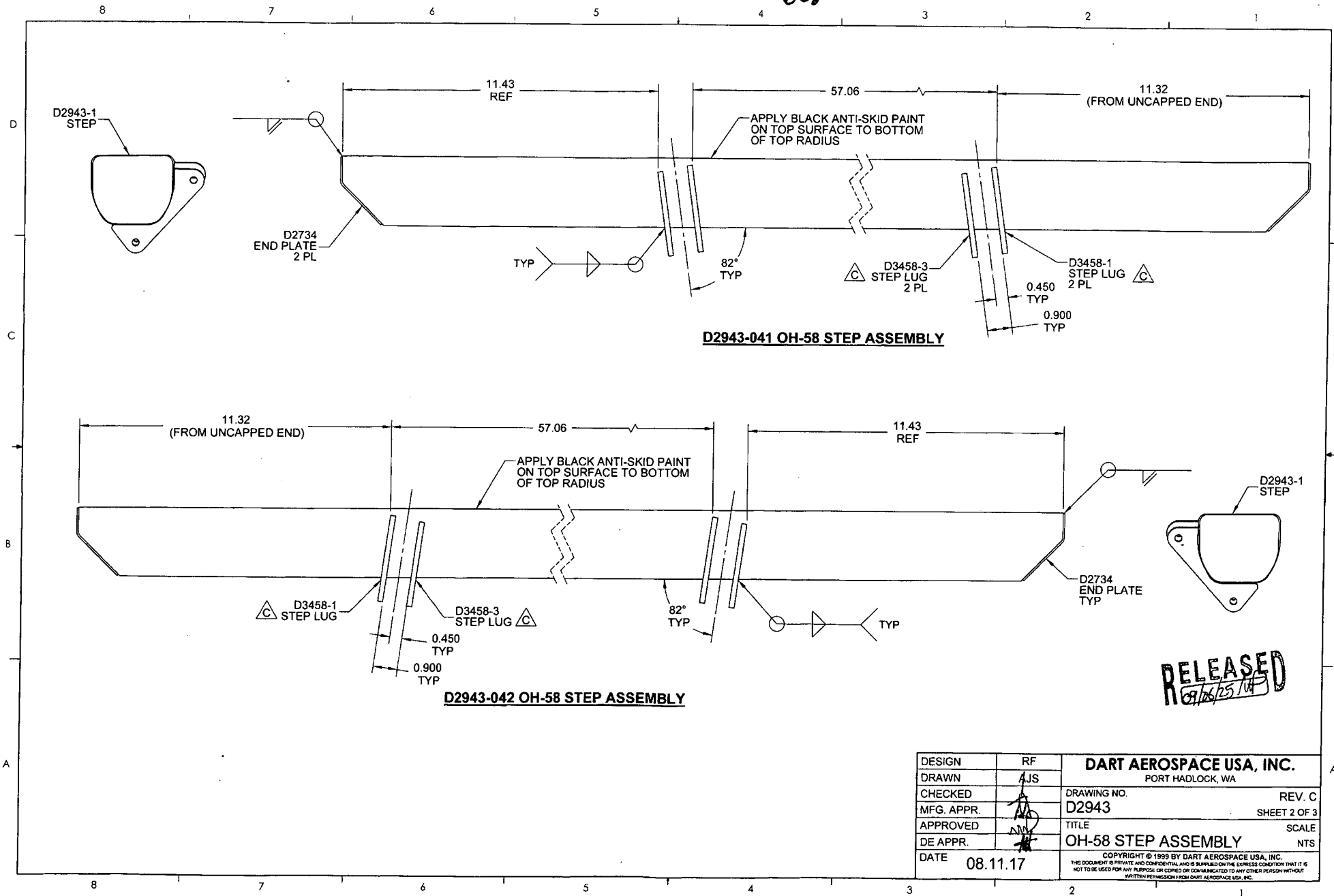
D2943-041/-042 NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 6.31 lbs
- 8) WELD PER QSI 004

C		REDRAWN IN SOLIDWORKS TO CURRENT DESIGN STANDARDS ATTACHMENT CHANGED FROM SINGLE LUG TO DOUBLE LUG. D2725 REPLACED BY ITEMS 12 & 13 REASON: SEE PAR 152. ADDED ITEM 7, D2622-082 MOVED FROM P/L TO NOTES ON SHEET 3.	AJS	08.11.17
B		UPDATED FINISHING NOTE	PH	05.11.14
A		NEW ISSUE	RF	99.11.19
REV.	DESCRIPTION		BY	DATE
DESIGN	RF	DART AEROSPACE USA, INC.		
DRAWN	AJS	PORT HADLOCK, WA		
CHECKED		DRAWING NO.	REV. C	
MFG. APPR.		D2943	SHEET 1 OF 3	
APPROVED		TITLE	SCALE	
DE APPR.		OH-58 STEP ASSEMBLY	NTS	
DATE	08.11.17	COPYRIGHT © 1999 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.		

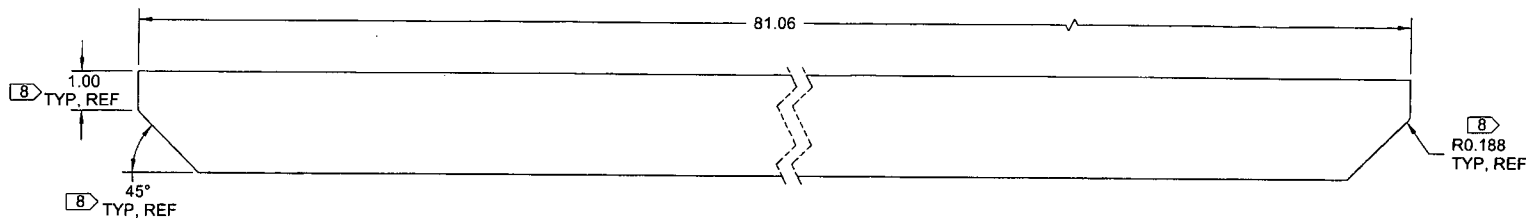
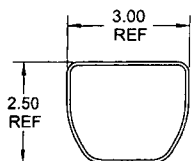
RELEASED
20151023 SH138080 09/25/17

6838



RELEASED
08/25/14

DESIGN	RF	DART AEROSPACE USA, INC.	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D2943	SHEET 2 OF 3
APPROVED		TITLE	SCALE
DE APPR.		OH-58 STEP ASSEMBLY	NTS
DATE	08.11.17	COPYRIGHT © 1999 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR DISSEMINATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	



D2943-1 STEP

RELEASED
09/06/25/17

D2943-1 NOTES:

- 1) MATERIAL: MAKE FROM D2622-082 EXTRUSION
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 5.93 lbs
- 8) SHAPE TO FIT D2734 END CAP

DESIGN	RF	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
DRAWN	AJS		
CHECKED		DRAWING NO. D2943	REV. C
MFG. APPR.		SHEET 3 OF 3	
APPROVED	NY	TITLE	SCALE
DE APPR.		OH-58 STEP ASSEMBLY	NTS
DATE	08.11.17	COPYRIGHT © 1999 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

Work Order ID 138080

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138080

To ship Nov 4 or Earlier
Please

Page 1

Item ID: D058-677-013

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Heli-Access-Step™ LH - High Gear OH-58

Stop

NS2

Start Date: 10/23/2015 Start Qty: 1.00

1

Cust Item ID:

Required Date: 11/4/2015 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan: SA

Date: 20151023

Tooling:

Date: _____

Run Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D2943

RevC

100

Document Control

0.00

100

DC

Memo

0.00

Doc.Control -USB or Paperwork

Photocopy bluefile & type labels per PPPD058-677-013

CHG 002

OCT 23 2015

MLJ

~~000177-20055~~

110

0.00

110

Large Fab

Memo

0.00

Large Fab

1-Cut D2943-1 from D2622 extrusion as per Dwg D2943

2-Deburr and bevel ends for welding

3-Weld end cap(1) and mounting plates as per Dwg D2943

A/R AL ROD Batch: _____

4-Grind end cap welds flush as per dwg D2943

4.0 PARTS LIST:

Qty -011	Qty -012	Qty -013	Qty -014	Part Number	Description
X				D058-677-011	HELI-ACCESS-STEP™, LH
	X			D058-677-012	HELI-ACCESS-STEP™, RH
		X		D058-677-013	HELI-ACCESS-STEP™, LH
			X	D058-677-014	HELI-ACCESS-STEP™, RH
1		1		D2943-041	STEP ASSEMBLY LH
	1		1	D2943-042	STEP ASSEMBLY RH
		2	2	D3394-045	MOUNTING LUG (REPLACES D2230-1)
		2	2	D2230-3	MOUNTING LUG
2	2			D3394-041	MOUNTING LUG (REPLACES D2731-1)
2	2			D2731-3	MOUNTING LUG
2	2	2	2	D3394-043	MOUNTING LUG (REPLACES D2731-5)
2	2	2	2	D2731-7	MOUNTING LUG
8	8	8	8	D2732-030	RUBBER CUSHION
8	8	4	4	AN4-14A	BOLT
4	4	4	4	AN4-15A	BOLT
		4	4	AN4-16A	BOLT
12	12	12	12	AN960JD416	WASHER
12	12	12	12	MS21042L4	NUT (OR MS21042-4)

5.0 WEIGHT AND BALANCE:

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
D058-677-011/ -013 HELI-ACCESS-STEP™, LH	8.15 lb 3.70 Kg	- 36.5 in - 0.93 m	- 297.5 in-lb - 3.30 m-kg	100.44 in 2.55 m	818.6 in-lb 9.44 m-kg
D058-677-012/ -014 HELI-ACCESS-STEP™, RH	8.15 b 3.70 Kg	+36.5 in +0.93 m	+297.5 in-lb +3.30 m-kg	100.44 in 2.55 m	818.6 in-lb 9.44 m-kg

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